Application No.: 10/064,830 **Docket No.: JCLA9625-R**

AMENDMENT

In the Claims:

Claim 1. (currently amended) A battery with built-in load leveling, comprising:

a rechargeable battery element, used as a primary energy supplier when the battery discharges;

a capacitor element, selected from the group consisting of supercapacitor, ultracapacitor, and electric double layer capacitor;

an electronic controller for controlling a two-way charging of complementary charge and complementary discharge between said battery element and said capacitor element;

a single housing to adapt said battery element, said capacitor element, and said controller to provide a hermetic encapsulation; and

two terminals by one positive terminal and one negative terminal, on the exterior of said housing for charging and for discharging.

Claim 2. (currently amended) The battery with built-in load leveling as claim 1, wherein said rechargeable battery element includes a

primary electrochemical cell selected from the group consisting of Zn/MnO_2, Zn/Ag_2O, and Zn-air batteries.

Claim 3. (currently amended) The battery with built-in load leveling as claim 1, wherein said rechargeable battery element includes a rechargeable electrochemical cell selected from the group consisting of lead-acid, nickel-cadmium, nickel-metal hydride, lithium ion, and lithium polymer batteries.

Claim 4. (original) The battery with built-in load leveling as claim 1, wherein said capacitor element has an energy density of 0.15F per 1 cm^2 of electrode area or greater than 0.15 F/cm^2.

Claim 5. (cancelled)

Claim 6. (currently amended) The battery with built-in load leveling as claim 1, wherein said rechargeable battery element and said capacitor element both use the same aqueous electrolyte including one salt selected from the group consisting of KOH, NaOH, H_2SO_4, and H_3PO_4 dissolved in water.

Claim 7. (currently amended) The battery with built-in load leveling as claim 1, wherein said rechargeable battery element and said capacitor element both use the same organic solvent selected from the group consisting of acetonitrile, propylene carbonate, ethylene carbonate, diethyl carbonate, and dimethyl carbonate.

Claim 8. (currently amended) The battery with built-in load leveling as claim 1, wherein said rechargeable battery element and said capacitor element both use a polymeric electrolyte.

Claim 9. (currently amended) The battery with built-in load leveling as claim 1, wherein said controller regulates said rechargeable battery element to discharge at 1C or a lower rate.

Claim 10.(currently amended) The battery with built-in load leveling as claim 1, wherein said controller regulates said capacitor element to provide a power difference between a load demand and a power provided by said rechargeable battery element.

Claim 11. (currently amended) The battery with built-in load leveling as claim 1, wherein said controller regulates said capacitor

element to extract stored energy of said rechargeable battery element until its voltage is not decayed below its cut-off voltage.

Claim 12. (previously amended)The battery with built-in load leveling as claim 1, wherein said controller regulates said capacitor element to receive a charging current of a magnitude up to hundreds of Ampere without exceeding an open cell voltage of said capacitor element.

Claim 13. (currently amended) The battery with built-in load leveling as claim 1, wherein while in a charging mode, said controller repeats a two-way charging sequence between said capacitor element and said rechargeable battery element until they are fully charged.